

ABSTRACT

A method of expandable network slot addressing to provide topological information for a network. The method includes providing a platform having addressable slots for data communication. A first tier device is located in one of the slots in the platform. At least one second tier device is connected to the first tier device. An extendable address is assigned to each of the first and second tier devices, with each address including a slot address segment which indicates which slot each of the devices resides in or is connected to at the modular platform, a depth segment which indicates a layer in the topology at which the device is located and a number of address bytes that are present, and an address byte segment which indicates where in the topology the device is located and provides each of the devices with a unique address so that each of the devices attached to the platform can be addressed and its topological position can be inferred from the address.